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Patent  
Attorney's Docket No. 032735-003

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of )  
)  
Yasushi SHIGEMORI et al. ) Group Art Unit: 1636  
)  
Application No.: 09/607,361 ) Examiner: K. Katcheves  
)  
Filed: June 30, 2000 ) Confirmation No.: 9813  
)  
For: LIGATION OF DOUBLE-STRANDED )  
DNAs )  
)  
)  
)

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**AMENDMENT TRANSMITTAL LETTER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed is an Amendment for the above-identified patent application.

☒ A Petition for Extension of Time is also enclosed.

☐ A Terminal Disclaimer and the ☐ \$55.00 (2814) ☐ \$110.00 (1814) fee due under 37 C.F.R. § 1.20(d) are also enclosed.

☒ Also enclosed is/are Replacement Figures 1-13 (13 Sheets)

☐ Small entity status is hereby claimed.

☐ Applicant(s) requests continued examination under 37 C.F.R. § 1.114 and enclose the ☐ \$375.00 (2801) ☐ \$750.00 (1801) fee due under 37 C.F.R. § 1.17(e).

☐ Applicant(s) requests that any previously unentered after final amendments not be entered. Continued examination is requested based on the enclosed documents identified above.

☐ Applicant(s) previously submitted \_\_\_, on \_\_\_, for which continued examination is requested.

☐ Applicant(s) requests suspension of action by the Office until at least \_\_\_, which does not exceed three months from the filing of this RCE, in accordance with 37 C.F.R. § 1.103(c). The required fee under 37 C.F.R. § 1.17(i) is enclosed.

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**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

Claim 1 (Currently amended): A method of ligating a double-stranded end of a double-stranded DNA and a single-stranded end of another double-stranded DNA, wherein the method comprises:

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- a) contacting, in the presence of a homologous recombinant protein, the single-stranded end of said other double-stranded DNA and the double-stranded end of said double-stranded DNA, wherein said double-stranded DNA comprises a sequence that is homologous to the nucleotide sequence of said single-stranded end, to form a three-stranded structure comprising said single-stranded end and said double-stranded end, and
  - b) completing the ligation by converting the three-stranded structure into a double-stranded structure by inserting the DNA complex comprising the three-stranded structure into cells and replicating it therein.

Claim 2 (Previously presented): The method of ligation of claim 1, wherein said three-stranded DNA structural complex is a circular DNA complex having a three-stranded